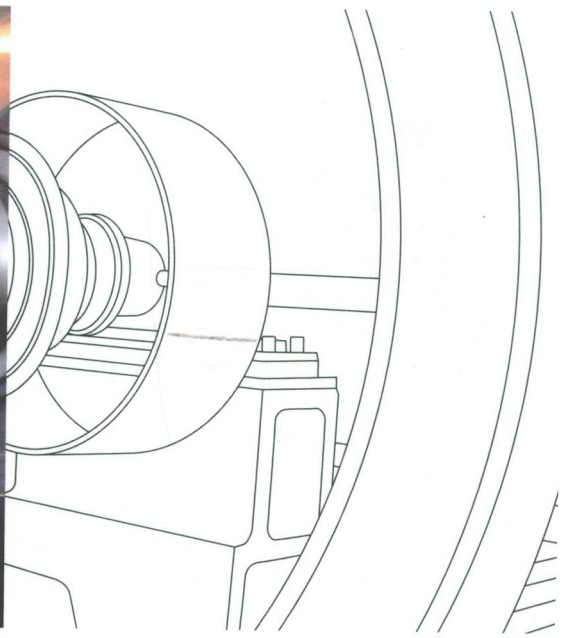
helen gubby

developing a legal paradigm for patents



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Preface

Having studied both history and law, it is perhaps not surprising that I would be attracted to a subject which gave me the possibility to combine both these areas: the development of patent law during the earlier phase of the Industrial Revolution in England. As a young history student, one of the university courses which made the most impression on me was the course given on the Industrial Revolution. While the period evoked the spectre of the 'dark satanic mills', at the same time it was a period of invention and innovation.

I chose to examine the development of patent law during the early phase of the Industrial Revolution from the perspective of case law. As a barrister by training, I was strongly drawn to the court room argumentation, which was described in detail in some of these cases. I was deeply impressed by the quality of the advocacy shown by some of these barristers. The cut and thrust of Bearcroft in *R v. Arkwright* 1785 or the skilful submissions made by Pollock in *Cornish v. Keene* 1837 and *Crane v. Price* 1842 would still serve today as examples of how it should be done. The courts of Lord Mansfield, Lord Kenyon and Lord Tenterden have grown familiar to me over the years of this study.

Much of the research in this book was carried out as a Ph.D. I would like to thank my thesis supervisor, Professor Laurens Winkel, professor of legal history at the Erasmus University Rotterdam, the Netherlands, for his valuable advice, his kindness and support. I also appreciate the help given to me by Professor John Cairns of Edinburgh University and the comments and remarks made by Professor Vogenauer of the University of Oxford and Professor Dirk van Zijl Smit of the University of Nottingham. The suggestion to link this historical perspective to present day discussions on patents came from Professor Cohen Jehoram of the Erasmus University Rotterdam, who is also an intellectual property lawyer. On a personal note, I would like to thank my good friends and family. A huge debt of gratitude is owed to my husband, Richard. His support has been unwavering. During the time I wrote my thesis, he put together two new computers for me and provided endless technical assistance. Even more important, he was there to encourage me when the project just seemed overwhelming. I would also like to thank my daughter, Hannah, who was completing her own Ph.D. at the same time I was writing mine. Our lunches together, during which we discussed the highs and lows of the life of the Ph.D. candidate, were a great comfort. Thanks too to my boys, Bobbie and Jamie, who were prepared to tolerate this strange preoccupation of their mother's and on occasion find files that seemed to have curiously disappeared from the face of the computer or lend other technical assistance. I would also like to say thank you to my friends: you never tired of asking me how my Ph.D. was going! And thank you Nessie, who not only put me up all the times I came to London

to visit the British Library, but has always been there for me. Finally, I would like to thank my parents; it is a pity that my father is not here to read this book.

Table of Contents

INTRODUCTION

For centuries, courts of law have been faced with the problem of determining what type of innovation is an appropriate subject matter for a patent. With each technical advance, the question of what is, and what is not, patentable must once again be determined by the courts. In more recent times, software based inventions have been the subject of considerable legal controversy and uncertainty. If a computer program is not patentable, and can only be protected by copyright, does that mean it is not possible to patent software for a program-controlled machine, or a program-controlled manufacturing process? Or should a distinction be drawn between a computer program as such and a computer program controlling a technical process? Can newly identified DNA sequences be patented or is that simply the discovery of scientific principles? The type of technology at issue may have changed since the eighteenth century, but the legal discussions these developments have engendered show some remarkable similarities to the discussions that were taking place in the courts during the Industrial Revolution.

This study traces the development of a legal structure for patents for invention during the earlier phase of the Industrial Revolution in England (1750s-1830s). In the final chapter, a jump forward is made to recent legal discussions on the patentability of software. These discussions are placed within this historical context. The study charts the development of patent law by examining judicial decision-making in patent disputes in the late eighteenth-early nineteenth century. Its focus is on the attitude of judges to patents. It examines what factors judges may have taken into account in reaching their decisions and how these factors may have affected the moulding of the legal concepts of patent law.

This emphasis is rather different from the more modern works on the patent system consulted in this study. H.I. Dutton's *The patent system and inventive activity during the industrial revolution 1750-1852* set out to assess the impact of the patent system on inventive activity. Christine MacLeod's *Inventing the Industrial Revolution: the English patent system, 1660-1800*, while providing an administrative history of the patent system, also explored the relationship between patents and inventions with particular regard to patent records. The purpose of Dirk van Zijl Smit's *The Social Creation of a Legal Reality: A Study of the Emergence and Acceptance of the British Patent System as a Legal Instrument for the Control of New Technology* was to contribute to a sociological understanding of the emergence of patent law and the way in which the patent system had been accepted by 1883 as a legal instrument to control and exploit new technology. Brad Sherman and Lionel Bentley's *The Making of Modern Intellectual Property Law: The British Experience 1760-1911* is a broader work than these three books and this study, as it is an account of the emergence of intellectual property law in general, with its categorisations of patents,

copyright, design and trademarks, and analyses the way in which the law grants property status to intangibles.

In the eighteenth-early nineteenth century, the patent grant was an act of the royal prerogative, as regulated by the Statute of Monopolies 1624. Letters patent were royal proclamations which functioned as administrative instruments for granting certain powers and privileges. These powers and privileges could be various in nature, including the granting of land, titles and offices. Privileges as diverse as patents for the supervision over an industry or trade, or a patent to enforce compliance with certain statutes, allowing the patentee to levy fines if the statute in question was breached, had been granted.[1] Patents for new inventions were just one type of patent; the term 'patent' would only become specifically linked to inventions in the course of the nineteenth century. Until the late eighteenth century, patents for new inventions represented only a small minority of all the letters patent which were filed.[2]

To obtain a patent, the inventor submitted a petition requesting a patent to one of the Secretaries of State, which would be referred to the law officers of the crown (the principal law officer being the Attorney-General, assisted by his deputy the Solicitor-General). This was only the beginning of a time-consuming, bureaucratic process, which included the signing and countersigning of a warrant, a bill being drafted, signed and sealed, and a writ authorising the Chancellor to engross the patent on parchment and seal it.[3] There was, however, no system of examination and it was only rarely that an invention would be examined prior to the patent being granted. Once all the necessary fees had been paid, the patent grant was usually a formality. From the 1730s onwards, the inventor was also required to register a patent specification disclosing the nature of his invention within a certain period after the grant of patent. Under Section VI of the Statute of Monopolies, the recipient of a patent grant for a new invention had the sole right of "working or making" the invention for a term of fourteen years. This exclusive right allowed the patentee to prevent any other person from using the subject matter protected by the patent. After the enactment of the Statute of Monopolies in 1624, it was clear that an inventor could only protect his invention from piracy by patent and that patent must be in conformity with the conditions set out in the Statute. (See paragraph 4.3 and paragraph 6.4.1).

The focus of the Statute of Monopolies was on monopolies rather than patents for new inventions, as the name by which this Act has commonly come to be known implies. Section I (5) in declaring that all monopolies would be void, including letters patent, referred to grants "for the sole buying, selling, making, working or using of any thing within the

1 Chris Dent, "Patent Policy in Early Modern England: Jobs, Trade and Regulation", *Legal History* (2006) Vol. 10, p. 74.

2 Christine MacLeod, *Inventing the Industrial Revolution: The English patent system, 1660-1800,* Cambridge 1988, p. 2.

3 For a more detailed account see MacLeod (1988), p. 41.

realm". Section VI of the Statute provided an exception to this general prohibition on monopolies for letters patent and grants of privilege to the "true and first inventor" of "any manner of new manufactures within this realm", if that manufacture was not already in use at the time of the patent grant, and the new invention was not in some way harmful to the state. A crucial element, therefore, in determining what was the subject matter of this exclusive right granted by patent was the definition of the term 'new manufactures'. Section I of the Statute, as noted above, had referred to the buying, selling making, working or using of a "thing". Was the term 'manufacture' to be understood to be a "thing", or could the term encompass a method capable of producing a thing, the protection of the patent being applicable to the method as separate from the thing itself? The interpretation by the judiciary of the term 'manufactures', and hence the subject matter of patent protection, is one of the major elements in the development of patent law examined in this study.

In the time between the Statute of Monopolies 1624 and the Patent Law Amendment Act 1852 there were several statutes passed dealing with patents. However, the Acts of 1835, 1839 and 1844, all introduced by Lord Brougham, dealt only with certain specific details. The Act of 1835 removed the competence to extend the period of patent protection from parliament to the Judicial Committee of the Privy Council and allowed certain errors in the specification to be set right, while the Act of 1839 effected only a minor amendment regarding the granting of patent extensions (see paragraph 1.5 and chapter 3, introduction). The Act of 1844, which falls outside the period covered in this study, empowered the Judicial Committee of the Privy Council to extend patents for up to fourteen years. There was no comprehensive statutory overhauling of the patent system until the 1852 Patent Law Amendment Act. Consequently, the Statute of Monopolies remained the statutory foundation for patent law. As the interpretation of the Statute of Monopolies, and the patent specification, fell to the courts, this left the development of patent law throughout the period of this study very much in the hands of the judges of the common law courts.

Before the mid-eighteenth century, however, the common law courts had not been the primary forum to determine the validity of the royal grants of patent. At the end of the sixteenth century, Elizabeth I had resisted attempts by parliament to have cases arising out of her royal grants tried in the common law courts, rather than in her own conciliar courts. It was the crown's prerogative to grant letters patent and, as the patent was a royal privilege, any disputes were seen by the crown as a matter to be decided under her own conciliar jurisdiction, not that of the common law courts. The case of *Darcy v. Allin* 1602, tried in a common law court, marked Elizabeth's concession to parliament in this respect. Despite this apparent concession by the crown, the common law courts would hear few patent cases in the seventeenth century. Of these, perhaps the most well-known is the case of the Ipswich Cloth Makers, heard in 1614 by the Court of King's Bench. Little changed after the Statute of Monopolies came into force in 1624, even though the Statute of Monopolies had determined that all monopolies should be tried according to the common

law, and not otherwise. It was the Privy Council, a body of men who were appointed and dismissed by the crown and whose function was to advise the crown on the exercise of the royal prerogative, which continued to hear patent validity cases well into the eighteenth century. The Privy Council only relinquished its competence to hear these cases in the wake of a dispute concerning Dr. James's patent in 1752 (see paragraph 1.1.1). The transfer of jurisdiction to the common law courts in the 1750s marks the starting point of this study.

The end point of the main part of this study is the 1830s. It is the decade in which an older mode of interpreting patents is clearly commuted. This discernable shift in the 1830s has been seen by several recent scholars as a watershed, marking a transition from an attitude of judicial hostility towards patents to a more favourable attitude by judges. Although Dutton acknowledged that determining the attitude of judges to patents was difficult, given that they not only seemed to be at variance with each other but also with themselves, he noted the "excessively hostile attitude of some judges". It was not until the 1830s that this period of "early prejudice" against patents gave way. Using a statistical analysis of patent cases, Dutton showed that judges were more generous to patentees after 1830 than in any previous period. This marked change in the attitudes of judges in the early 1830s was, in his opinion, because the judges now "accepted that inventions led to prosperity and economic growth".[4] His findings were endorsed by MacLeod. Pointing to Dutton's conclusion, that the attitude of common law judges was largely hostile to patents for about fifty years before 1830, she observed that in the patent litigation of the closing decades of the eighteenth century "the odds were stacked against patentees".[5]

The severity with which some judges treated the patent specification was a common cause for complaint by patentees: a patent could be set aside because of some "trifling fault" in the specification.[6] For example, a patent for an improvement to the English flute to render fingering easier and to produce notes not produced before was set aside because only one musical note had been produced, and the patent had stated a plural, 'new notes', when in fact there was just one. It was voided despite the fact that several professional flageolet players, called as witnesses, had described the patentee's instrument as "a great improvement".[7] A patent for a tapering hairbrush was set aside because, according to the judge: "Tapering means gradually converging to a point. According to the specification,

4 H.I. Dutton, *The patent system and inventive activity during the industrial revolution1750-1852*, Manchester 1984, pp. 76-81.

5 MacLeod, *Inventing the Industrial Revolution: the English patent system, 1660-1800* (1988), pp. 72, 74.

6 See for example the testimony of the patent agent, William Newton, in the *Report from the Select Committee on the Law relative to Patents for Inventions 1829*, p. 76 (hereafter referred to as the *Select Committee Report 1829*).

7 *Bainbridge v. Wigley* 1810, 1 CPC 278.

the bristles would be of unequal length, but there would be no tapering to a point, which the title of the patent assumes."[8]

Should the development of patent law from the 1750s to the 1830s be read in terms of 'hostility' and 'prejudice' giving way in the 1830s to a more favourable approach because judges now thought inventions were good for the economy? Was judicial hostility and prejudice towards patents during this period a factor which affected the development of patent law? Lord Kenyon did not hide his personal distaste for patents. Lord Ellenborough was the judge who had found the two patents referred to above (the cases of *Bainbridge v. Wigley* 1810 and *R v. Metcalf* 1817) void because of grammatical irregularities. Lord Mansfield had a high rate of nonsuits and nominal damage awards in patent cases. Is this evidence of judicial 'hostility' and 'prejudice' towards patents?

By awarding the patentee the exclusive right to work or make the invention during the period of protection, a patent instituted a monopoly. The Statute of Monopolies had prohibited monopolies, as contrary to the laws of the realm. A patent for a new invention, however, was an exception to that general prohibition on monopolies, if the patent had been awarded in compliance with the conditions laid down in the Statute. Is it possible that a judge's attitude towards monopolies played a role in judicial decision-making in patent cases?

There is one other possible factor that may have affected judicial decision-making: the nature of the patent as a legal entity and the legal status of the patentee. Based on the judicial opinions expressed in copyright cases, it is apparent that neither copyright nor a patent for a new invention fitted neatly within a more traditional interpretation of property at common law. Was the patent to be seen in contractual terms, as a contract between the crown, on behalf of the public, and the individual patentee? Or was the patent a species of property? If it was a species of property, had it ever been recognised as such at common law or was it an anomalous form of property? Should the patentee's legal position best be described in terms of having a right or a privilege? Whether the attitude taken by judges to these questions had an impact on their decision-making in patent cases and the development of patent law is explored in this study.

In order to examine these factors, the case reports of the period are of vital importance and it is these case reports which form the mainstay of this study. As explained in chapter 1, from the mid-eighteenth century court reporting became more accurate and reliable. Series of reports appeared written by reporters who had specialized in reporting cases in a particular court. It was James Burrow who inaugurated this new era of court reporting with his reports on cases heard in King's Bench under Lord Mansfield (the reports were published in five volumes covering the period 1756-1772). However, not all patent cases were reported in this period and some were only partially recorded. Sometimes the only

8 *R v. Metcalf 1817*, 1 CPC 393.

reference to cases is to be found in the trial notebooks of the judges, in newspapers or pamphlets. These are important sources, but particularly with respect to pamphlets, it should be borne in mind that the party producing the pamphlet was not disinterested. It is to be expected that a pamphlet would highlight those statements made by a judge that were favourable to the cause of the pamphleteer.

To be consistent with the terminology of these reports, the one bringing an action is referred to as the plaintiff in this study, and not by the more modern English term 'claimant'. Quoting from these cases and legal literature of the period also entails an archaic way of referring to statutes, which was by citing the statute according to the year of the reign of a particular monarch, an abbreviation of the monarch's name, which could take a Latin form, the chapter number and section number. For example, Section VI on patents for new inventions in the Statute of Monopolies 1624 was cited as 21 Jac. 1. c. 3. s. 6: the twenty-first year of the reign of James I, chapter 3, section 6. It should also be noted that the spelling of the names of the parties was not always consistent in the case reports, for example, *Morris v. Bramson/Branson* 1776, *Harmar/Harmer v. Playne/Plane* 1807-1809 and *Macfarlane/Macfarland v. Price* 1816. The spelling in the quotations taken from eighteenth century texts has been modernised for ease of reading.

In the early years of the nineteenth century, the first of several compilations of patent cases appeared. John Davies, an official in an office where specifications were enrolled, gathered together his collection of patent cases in the period 1785 to 1816. Davies's collection of cases (DPC), which appeared in 1816, was one of the sources for later compilations. Important compilations were also made by William Carpmael and Thomas Webster. Carpmael's collection (CPC) was put together in the period 1802 to 1840. Although Carpmael had been called to the bar, he was also a trained civil engineer. Carpmael's reports were intended not just for lawyers but also for patentees, manufacturers and inventors. Like Carpmael, Thomas Webster, whose compilation was made between1802 and 1855, had also been called to the bar but he too had studied engineering. Not only did Webster's *Reports and Notes on Cases on Letters Patent* (WPC) become a standard work, he was actively involved in the campaign to reform the granting of patents, which would finally result in the legislation of 1852.[9] Although some of the reports in the compilations of Webster and Carpmael are the same, there can be variations in the reporting. For example, unlike Webster, Carpmael deals in detail with the Chancery and King's Bench hearings of *Harmar v. Playne*, respectively 1807 and 1809. These collections form a major source in the most recent compilation of patent cases by Peter Hayward. In *Hayward's Patent Cases* (HPC), all the available reports on any one particular case have been compiled. Apart from Webster and Carpmael, his sources include the English Reports (ER), Goodeve's Abridg-

9 William Holdsworth, *A History of English Law*, London 1964, vol. XIII, pp. 431, 442.

ment, and journals such as the London Journal of Arts and Sciences and Register of Arts (RA).[10]

It was also in the early nineteenth century that the first patent treatises appeared. John Collier's *An Essay on Patents for New Inventions* was published in 1803. Richard Godson's *A Practical Treatise on the Law of Patents for Invention and Copyright* appeared in 1823, with a supplement in 1832. On the other hand, very few lines are devoted to patents in one of the most significant general legal treatises used throughout the period under consideration here: William Blackstone's *Commentaries on the Laws of England*, the four volumes of which were first published between 1765 and 1769. Nonetheless, Blackstone's *Commentaries* are also an important source for this study. Blackstone's work, which was considered to be a classic even by contemporaries, addresses several matters of relevance to this study, such as the judicial interpretation of statutes, the object of property at common law and monopolies. The edition of the *Commentaries* used in this study is the twelfth edition, published in 1793, and the page numbers cited refer to this edition. This edition of Blackstone's *Commentaries* was edited by Edward Christian. Christian, who was the first Downing professor of the laws of England at Cambridge, would act as the editor of the 12th through to the 15th edition of Blackstone's *Commentaries*. Christian's footnotes were sometimes of a quite extensive nature. The footnotes were intended to bring Blackstone's text up to date, as well as providing Christian with a forum to make certain observations of his own. Christian's footnotes are, therefore, of interest in their own right.

CHAPTER 1 THE PATENT COURTS AND COURT REPORTING

Chapter 1 also provides a brief outline of the courts which were hearing patent cases at this time. There was no one specific court which heard patent cases in the eighteenth and early nineteenth century, as all three of the senior common law courts (King's Bench, Common Pleas and Exchequer) had jurisdiction. Patent cases in the common law courts could be heard at *nisi prius*, before a single judge and a jury. A case could, however, be considered by the full court, for example on a motion to set aside the verdict reached at *nisi prius* or on a writ of error to consider a point of law (see paragraph 1.3). The Court of Chancery, a court of equity, also had a role to play. This was primarily because only an equity court could grant an injunction.

10 Peter Hayward, *Hayward's Patent Cases 1600-1883*, Abingdon, Oxon. 1987.

Chapter 2 Divisions Within the Judiciary: Were Some Judges Hostile to Patentees?

In the absence of major statutory intervention in the period under consideration, the development of patent law fell largely to the judges. To contend that judges moulded the law presumes that judges have a creative function, either of an original or derivative nature. Without this creative aspect, whether judges were hostile to or prejudiced against patents, would be irrelevant. In chapter 2, a very brief overview is given of three models of judicial interpretation: the formalist, rule bound model; the creative model and the bounded creativity model. Within the judiciary a split is discernable between those judges who conceive of their role in formalist terms and those judges who adopt a teleological approach, the latter being willing to adapt the law to the perceived needs and circumstances of the day. It would seem, however, that in practice, even those judges who endorse a formalist conception of the role of the judge are more than simply a *bouche de la loi*.

The legal treatises of the eighteenth century put forward a formalist approach to the judicial role. Nonetheless, as the opinions of Lord Mansfield and some of the other judges in the Court of King's Bench make clear, the approach of some judges was teleological: not the black letter of the law but its purpose was the key to interpretation. Even a judge like Blackstone, who put forward a formalist approach to judicial decision-making in his *Commentaries*, argued for the equitable interpretation of statutes. Vogenauer, in his examination of statutory interpretation in England and on the continent, argues that the equitable interpretation of statutes was the predominant form of judicial interpretation in the period from the Year Books to 1830 (see paragraph 2.1.1 and 2.2, and paragraph 3.2). Chapter 2 explores this split within the judiciary and whether the attitude of judges to patents should be analysed in terms of difference in interpretational style rather than in terms of hostility and prejudice.

Chapter 3 Patent Law: The Interpretation of the Statute of Monopolies 1624 from the 1750s to the 1830s

In traditional areas of law, where the bounds of orthodoxy had been well established, differing interpretational styles within the judiciary were generally not particularly conspicuous. Radical attempts to push those bounds were relatively rare, but when such an attempt was made the differing approaches to the role of the judge would surface. The split between the formalist approach and the teleological approach would emerge very clearly in a new area of law virtually devoid of precedents in the common law courts: patent law. As chapter 3 will show, the different styles of judicial interpretation would affect the way in which the Statute of Monopolies was read.